

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Applicant: Lyco Septic Service, LLC
259 Riverboat Road
Dayton, Nevada 89403

Permit: NEV2002516 – Renewal

Location: Circle Bar N Ranch
Parcel #14-521-28
Yerington, Lyon County, Nevada 89447
Latitude: 39° 00' 57" N
Longitude: 119° 08' 56" W
Township 13N, Range 25E, Section 2 MDB&M

Public Water Supply: The land application site is located within 6,000 feet, Drinking Water Protection Area 4, of three City of Yerington public water supply wells.

General: The Applicant proposes to continue to land apply domestic septage, portable toilet fluid, and grease interceptor material pumped by the Applicant or provided by Easy Rooter Plumbing to a 20-acre nutrient deficient site located approximately 6,500 feet north of Highway 95A, west of the intersection of Tucker Lane and Densmore Lane, near the Yerington Municipal Airport. The Applicant has also requested authorization to land apply the same fluids on an adjacent 38-acre field, north of Joggles Ditch. These two sites are part of Circle Bar N Ranch (O-N). The proposed 38-acre site is bordered by other O-N property on three sides with the Walker River to the west and other O-N lands across the River. Pit Stop Pots and Septic Service (PSPSS), the current Permittee, has been authorized to land apply at the 20-acre site since November 21, 2005 under NEV2002516; the Applicant acquired PSPSS in late 2007. This permit was initially issued to Merriwether's Pit Stop Pots and Septic Service January 7, 2003 for a 40-acre land application site at the Moreda Dairy. On February 11, 2004, the permit was modified to include 40 acres at O-N.

This permit renewal will remove the Moreda Dairy site and the 20 acres used by the former Permittee at O-N from the permit. The former Permittee land applied septage to 20 of the 40 permitted O-N acres for over 1.5 years without properly documenting application rates. Land application rates at the Moreda Dairy site were not properly documented by the former Permittee.

The 20-acre site has been subdivided into smaller fields for better control of the domestic septage application rates; the 38-acre site will be similarly divided. The septage must be screened to remove solids over ½-inch in size before the septage can be land applied. The septage must be incorporated into the soil within 6 hours of being land applied. A crop must be planted to uptake the nitrogen that is contained in the septage within one year of domestic septage application. The application rate of domestic septage will be based on the nitrogen needs of the crop planted; a nitrogen balance is required, if other sources of nitrogen, manure, commercial fertilizer, effluent that has not been denitrified, etc., are used on fields that have received septage. Food crops cannot be grown for five years after septage application.

The Permittee has installed a 10,000-gallon steel, above-ground storage tank at the southeast corner of the 20-acre site for mixing of domestic septage and grease trap material, to store the domestic septage during inclement weather, and for storage when the incorporation equipment is not operational or at the land application site. The Permittee is also authorized to store a maximum of 4,000 gallons in the field truck that is used to land apply the septage. The tanks must not be open to the atmosphere other than screened venting. Containment berms are required around the storage tank and around the field truck when used for storage.

Receiving Water Characteristics: On August 8, 2007, the groundwater was reported to be at a depth of 8 feet, 1 inch below ground surface at the facility in groundwater elevation monitoring well MW-1. In June 2007, depths to groundwater were 6' 11" and 7' 3" in wells MW-1 and MW-2, respectively. The groundwater quality was not analyzed and the Division has no data regarding the shallow groundwater quality in this area.

The Division of Water Resources well log database lists no wells in Township 13N, Range 25E, Section 2. Most of the wells in adjacent sections, are located in the residential areas south and southeast of the facility. The static water level in these wells range from 3 to 29 feet below ground surface. No water quality data is available.

Characteristics: Only domestic septage, portable toilet fluid, and grease interceptor material may be land applied under this permit. No analysis of these materials is required. Portable toilet fluid must be land applied at one-sixth of the septage application rate. Grease interceptor material shall be mixed with domestic septage at a rate of one part grease interceptor material to a minimum of three parts domestic septage, by volume, prior to land application.

No industrial waste may be land applied.

Flow: The application rate, in gallons of septage per acre per year, shall be based on the amount of nitrogen required by the planned crop and crop yield. O-N has been growing wheat silage at a design yield of 4 tons/acre and a nitrogen uptake rate of 175 pounds of nitrogen/acre/year at the site. If these cropping practices are continued, domestic septage may be applied at a maximum rate of 67,300 gallons per acre per year.

$$\text{gallons/acre} = \text{pounds of nitrogen required for crop yield} \div 0.0026$$

The 175 pounds of nitrogen per acre may be adjusted based on the recommendation of the Cooperative Extension Service or other cropping expert with local experience regarding crop nitrogen demand and yields.

The permit renewal application estimates that 750,000 gallons of septage will be land applied in 2007 with a 2008 goal of 1,000,000 gallons.

The Applicant has not requested a 30-day average flow or a daily maximum flow. Permits for the land application of domestic septage do not include flow limitations, provided that adequate land is available for domestic septage application. The permit does not regulate cropping practices, only the utilization of nitrogen applied.

Proposed Septage Use Requirements:

-Septage use must meet all of the requirements of 40 CFR Section 503, Standards for the Use or Disposal of Sewage Sludge.

-Domestic septage and grease interceptor material shall not be applied to land within 100 feet of any public roadway or within 600 feet of any residence.

-Domestic septage and grease interceptor material shall not be applied within 200 feet of a drinking water well not defined as a public water system well.

-Domestic septage and grease interceptor material shall not be applied within 1,000 feet of a public water system well.

-Domestic septage and grease interceptor material shall not be applied within 50 feet of an irrigation well that has been sealed per Nevada Administrative Code (NAC) 534.380.

-Domestic septage and grease interceptor material shall not be applied within 200 feet of an irrigation well that is not sealed or cannot be documented as sealed per NAC 534.380.

-Domestic septage and grease interceptor material shall not be applied within 50 feet of any irrigation or drainage ditch, swale, intermittent stream, creek, river, wetland, lake, or other surface water.

-All land application sites shall be fenced and posted with warning signs stating "DOMESTIC SEPTAGE APPLIED, NO TRESSPASSING".

-Equipment to incorporate the domestic septage and grease interceptor material into the soil shall be on the site and in operating condition at the time of land application.

-Food crops shall not be grown on land that has had domestic septage applied within the past five (5) years.
(Food crops are crops consumed by humans. These include, but are not limited to, fruit, vegetables, and tobacco.)

-The domestic septage and grease interceptor material shall be land applied at a uniform rate by means of a spray bar, splash plate, or similar method approved by the Division.

-The domestic septage and grease interceptor material shall be screened through a ½-inch or finer screen to remove solids from the septage prior to land application. Solid material removed from the domestic septage shall be disposed of in an approved landfill.

-Grease interceptor material shall be mixed with domestic septage at a rate of one part grease interceptor material to at least three parts domestic septage, by volume, prior to land application.

-Domestic septage and grease interceptor material shall not be applied to land if the depth to groundwater is less than 3 feet.

-All tanks used for storage at the beneficial use site shall be permanently labeled to identify the contents of the tank, the Permittee, the Permittee's phone number, and the Permittee's address.

-All tanks storing domestic septage and/or grease interceptor material shall be inspected daily for leakage. Documentation of the inspections shall be maintained in a bound logbook at the facility. Leaking tanks shall be immediately evacuated and not returned to service until all leaks have been repaired.

-Containment berms are required around all tanks storing domestic septage and/or grease interceptor material.

-The crop used to determine the annual application rate shall be planted within one year of the land application of domestic septage.

-Dry land farming is not authorized. The party responsible for the cropping must have irrigation water rights for the site prior to land application of domestic septage.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance. The Permittee shall implement and/or execute the following scheduled compliance requirements:

- a. Upon the effective date of this permit, the Permittee shall achieve compliance with the beneficial use limitations.
- b. At least sixty (60) days prior to land applying any domestic septage to the thirty-eight (38) acre field north of Joggles Ditch, the Permittee shall submit a revised Operations and Maintenance Manual covering the land application activities to be conducted on this field to the Division for review and approval.
- c. Prior to land applying any domestic septage to the thirty-eight (38) acre field north of Joggles Ditch, the Permittee shall submit to the Division documentation that Circle Bar N Ranch has authorized the land application of domestic septage to this field, is aware of the permit conditions, and has adequate irrigation water rights for the proposed crop.
- d. At least thirty (30) days prior to land applying domestic septage within 500 feet of the Walker River, the Permittee shall submit to the Division the proposed location of third water elevation monitoring well, MW-3.
- e. Prior to land applying domestic septage within 500 feet of the Walker River, the Permittee shall install a third groundwater elevation monitoring well, MW-3, between the River and 38-acre land application field.

Rationale for Permit Requirements: Permit requirements are necessary to protect the public health and prevent the land application site from becoming a public nuisance and a source of water pollution.

Due to the shallow groundwater in this portion of Mason Valley, the Permittee is required to monitor the depth to groundwater in the two groundwater elevation monitoring wells on a quarterly basis. If the depth to groundwater is 4.0 feet or less in any well, the Permittee is required to increase the measurement frequency from quarterly to monthly for all wells until the depth to groundwater exceeds 4.0 feet for three consecutive months in all wells.

If the depth to groundwater is 3.0 feet or less in any well, the Permittee is required to immediately cease land application and not resume land application until the depth to groundwater exceeds 3.0 feet in all wells. The Permittee may exempt himself from a complete shutdown of the facility, if the Operations and Maintenance Manual contains an explanation of how the groundwater elevation can be verified in the individual fields. This may require the construction of additional wells.

The western portion of the 38-acre land application site is much closer to the Walker River than the 20-acre site currently in use. Therefore, as a schedule of compliance item, the Permittee is required to install a groundwater elevation monitoring well between the River and the land application site, if domestic septage will be land applied within 500 feet of the River.

Groundwater quality monitoring is typically not required for agricultural domestic septage beneficial use sites. No groundwater quality monitoring will be required at O-N because this site is actively farmed with irrigation and crop harvest to ensure uptake of the applied nitrogen.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit, NEV2002516, authorizing the Permittee to land apply domestic septage, portable toilet fluid, and grease interceptor material subject to the conditions contained within the permit, is being sent to the **Mason Valley News** and the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of publication of the public notice in the newspaper. The date and time by which all written comment must be postmarked or transmitted to the Division via facsimile or e-mail is 5:00 P.M. March 8, 2008. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Bruce Holmgren
February 2008